

ABSTRACT

The invention provides an adhesive-carrying porous film for use as a battery separator, which comprises:

5 a substrate porous film such that when a probe of a probe penetrating thermomechanical analyzer, said probe having a diameter of 1 mm, is placed on the porous film under a load of 70 g to measure a thickness thereof while heating the porous film from room temperature at a rate of 2°C/minute, a temperature at which
10 the thickness of the porous film decreases to a half of the thickness of the porous film when the probe was initially placed thereon is 200°C or more; and

 a partially crosslinked adhesive carried on the substrate porous film, the partially crosslinked adhesive being prepared by
15 reacting a reactive polymer having a functional group capable of reacting with an isocyanate group therein with a polyfunctional isocyanate so that the reactive polymer is partially crosslinked.

 Such a porous film (a separator) is temporarily bonded to an electrode to provide an electrode/separator laminate. In
20 manufacturing a battery, the use of the laminate makes it possible to manufacture a battery efficiently with no mutual slip movement between the electrode and the separator, and in addition, the porous film (the separator) itself, after manufacturing a battery, functions as a separator which does not melt or break, and has a small heat
25 shrinkage under high temperatures